

WHAT IS CLAIMED IS:

1 1. A method of servicing a telephone call directed to an
2 Internet Protocol telephony device coupled to an Internet
3 Protocol network, the telephone call being placed from a
4 telephone device coupled to a public telephone network by
5 dialing a first telephone number associated with the
6 Internet Protocol telephony device, the method comprising
7 the steps of:

8 activating a trigger set at a telephone switch
9 included in said public telephone network, the trigger
10 being responsive to calls received by said telephone
11 switch directed to said first telephone number;

12 pausing call processing at said telephone switch in
13 response to activation of said trigger;

14 accessing a database maintained in said Internet
15 Protocol network to obtain there from information
16 associated with the first telephone number; and

17 controlling completion of said call by said
18 telephone switch as a function of the information
19 obtained from said database.

1 2. The method of claim 1,

2 wherein the obtained information includes call
3 forwarding information; and

4 wherein the step of controlling completion of
5 said call includes operating said telephone switch to
6 route said call using a telephone number included in the
7 obtained information.

1 3. The method of claim 1, wherein the obtained
2 information includes call forwarding information.

1 4. The method of claim 3,
2 wherein the obtained information includes an
3 Internet Protocol address; and
4 wherein the step of controlling completion of
5 said call includes operating said first telephone call to
6 route said call using the IP address included in the
7 obtained information.

1 5. The method of claim 4,
2 wherein the obtained information includes call
3 screening information; and
4 wherein the step of controlling completion of
5 said call includes terminating said call without
6 completing it to said telephone number when said call
7 screening information indicates that the call will not be
8 completed successfully by the Internet Protocol network
9 to the Internet telephony device corresponding to the
10 called number.

1 6. The method of claim 5, wherein the call screening
2 information includes bandwidth information.

1 7. The method of claim 5, wherein the call screening
2 information includes language information.

1 8. The method of claim 5, wherein the call screening
2 information includes calling party telephone number
3 information.

1 9. The method of claim 1, wherein said trigger is an
2 advanced intelligent network trigger, the method further
3 comprising the step of:

4 pausing call processing at said switch following
5 activation of said trigger; and

6 sending a message to a service control point located
7 in said public switched telephone network, the service
8 control point performing said accessing step.

1 10. The method of claim 9, wherein the step of accessing
2 said database includes:

3 using Session Initiation Protocol (SIP) to contact a
4 device in said Internet Protocol network which is
5 responsible for retrieving information from said
6 database.

1 11. The method of claim 10,

2 wherein said telephone switch is a gateway
3 switch which interconnects said public telephone network
4 with the Internet Protocol network, the method further
5 comprising, for calls completed to said Internet Protocol
6 telephony device:

7 operating the gateway switch to generate
8 Internet Protocol packets corresponding to said
9 telephone call; and

10 transmitting said generated Internet
11 Protocol packets to the Internet Protocol network
12 for delivery to said Internet Protocol telephony
13 device.

1 12. The method of claim 9, wherein the step of accessing
2 said database includes:

3 using Enum to contact a device in said Internet
4 Protocol network which is responsible for retrieving
5 information from said database.

1 13. The method of claim 12, wherein said device in said
2 Internet Protocol network which is contacted is a domain
3 name server.

1 14. The method of claim 1, wherein the step of accessing
2 said database includes:

3 using Session Initiation Protocol (SIP) to contact a
4 device in said Internet Protocol network which is
5 responsible for retrieving information from said
6 database.

1 15. The method of claim 1, wherein the step of accessing
2 said database includes:

3 using Session Initiation Protocol ENUM to contact a
4 device in said Internet Protocol network which is
5 responsible for retrieving information from said
6 database.

1 16. A communications system for processing telephone
2 calls, the communications system comprising:

3 an Internet Protocol network for routing calls
4 transmitted using Internet Protocol packets to Internet
5 Protocol telephony devices, the Internet Protocol network
6 including a database of Internet Protocol telephone
7 device telephone numbers and associated information;

8 a telephone switch including a trigger set to detect
9 telephone calls directed to an Internet Protocol
10 telephony device coupled to the Internet Protocol
11 network;

12 a service control point coupled to said telephone
13 switch, the service control point including:

14 i) means for accessing said database of
15 Internet Protocol telephone device telephone
16 numbers and associated information in response
17 to a message received from the telephone switch
18 relating to a telephone call activating said
19 trigger; and

20 ii) control logic for generating call
21 completion instructions as a function of
22 information obtained from said database.

1 17. The communication system of claim 16, wherein the
2 means for accessing said database includes a Session
3 Initiation Protocol interface.

1 18. The communications system of claim 17, wherein said
2 database includes call screening information.

1 19. The communication system of claim 17, wherein said
2 database includes call forwarding information.

1 20. The communications system of claim 17, wherein the
2 means for accessing said database includes an ENUM
3 interface.

1 21. The communications system of claim 20, wherein said
2 database includes Internet Protocol addresses
3 corresponding to the telephone numbers included in the
4 database.

1 22. The communications system of claim 16, wherein said
2 trigger is an advanced intelligent network trigger.